

- sion from a back-end game server executing a video game, wherein the stream of video frames is received at a local device of a first player participating the multi-player gaming session, wherein the first player is controlling a first character in the multi-player gaming session, wherein a second player is controlling a second character in the multi-player gaming session;
- program instructions for detecting that a network connection between the local device and the back-end game server communicating through the network is below a quality of service (QoS) metric;
- program instructions for responsive to the detecting that the network connection is below the QoS metric, instantiating a local instance of the video game at the local device using game state data and user data of a plurality of players participating in the multi-player gaming session to enable game play by the first player of the video game;
- program instructions for controlling the second character in the local instance of the video game using an AI model configured with AI state data to emulate behavior of the second player; and
- program instructions for sending video frames generated through execution of the local instance of the video game to a display associated with the first player.
- 9.** The non-transitory computer-readable medium of claim **8**, further comprising:
- program instructions for pausing sending of the stream of video frames of the multi-player gaming session to the display.
- 10.** The non-transitory computer-readable medium of claim **8**, further comprising:
- program instructions for receiving a plurality of controller inputs for controlling the second character from the back-end server executing the AI model configured with the AI state data.
- 11.** The non-transitory computer-readable medium of claim **8**, further comprising:
- program instructions for executing at the local device the AI model configured with the AI state data to generate a plurality of controller inputs for controlling the second character.
- 12.** The non-transitory computer-readable medium of claim **8**, further comprising:
- program instructions for detecting that the network connection is above the QoS metric; and
- program instructions for restoring the multi-player gaming session by sending the stream of video frames received from the back-end game server to the display.
- 13.** The non-transitory computer-readable medium of claim **12**, further comprising:
- program instructions for terminating or pausing execution of the local instance of the video game.
- 14.** The non-transitory computer-readable medium of claim **12**, further comprising:
- program instructions for determining a divergence from a game play of the multi-player gaming session and the game play of the first player in the local instance of the video game;
- program instructions for generating one or more transition scenes; and
- program instructions for sending the one or more transition scenes to the display before sending the stream of video frames in the multi-player gaming session that is restored.
- 15.** A computer system, comprising:
- a processor; and
- memory coupled to the processor and having stored therein instructions that, if executed by the computer system, cause the computer system to execute a method for gaming comprising:
- receiving, over a network, a stream of video frames of a multi-player gaming session from a back-end game server executing a video game, wherein the stream of video frames is received at a local device of a first player participating the multi-player gaming session, wherein the first player is controlling a first character in the multi-player gaming session, wherein a second player is controlling a second character in the multi-player gaming session;
- detecting that a network connection between the local device and the back-end game server communicating through the network is below a quality of service (QoS) metric;
- responsive to the detecting that the network connection is below the QoS metric, instantiating a local instance of the video game at the local device using game state data and user data of a plurality of players participating in the multi-player gaming session to enable game play by the first player of the video game;
- controlling the second character in the local instance of the video game using an AI model configured with AI state data to emulate behavior of the second player; and
- sending video frames generated through execution of the local instance of the video game to a display associated with the first player.
- 16.** The computer system of claim **15**, the method further comprising:
- pausing sending of the stream of video frames of the multi-player gaming session to the display.
- 17.** The computer system of claim **15**, the method further comprising:
- receiving a plurality of controller inputs for controlling the second character from the back-end server executing the AI model configured with the AI state data.
- 18.** The computer system of claim **15**, the method further comprising:
- executing at the local device the AI model configured with the AI state data to generate a plurality of controller inputs for controlling the second character.
- 19.** The computer system of claim **15**, the method further comprising:
- detecting that the network connection is above the QoS metric;
- restoring the multi-player gaming session by sending the stream of video frames received from the back-end game server to the display; and
- terminating or pausing execution of the local instance of the video game.
- 20.** The computer system of claim **19**, the method further comprising: